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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,994	11/21/2001	Tetsuya Hori	500.40886X00	9525

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ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER	
GENCO, BRIAN C	

ART UNIT	PAPER NUMBER
2615	17

DATE MAILED: 11/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/988,994	HORI ET AL.	
	Examiner	Art Unit	
	Brian C Genco	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 15-30 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 15-30 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Applicant's amendment filed September 2, 2003 has been fully considered by the Examiner but is not deemed persuasive.

Applicant's amendment has overcome the rejections previously presented. As such, new grounds of rejection are presented bellow.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 15-30 are rejected under 35 U.S.C. 103(a) as being obvious over (Applicant's admitted prior art) in view of (USPN 6,005,613 to Endsley et al.).

In regards to claim 15 Applicant's admitted prior art discloses an image processing apparatus comprising:

an imaging optical system for forming an image of an object on an imaging surface (e.g., page 1, lines 9-13);

a color imaging device including photo-detectors and a color filter arranged on the imaging surface in two-dimensions, for performing photoelectric conversion of the image of the object formed by the imaging optical system (e.g., Fig. 4A; page 2 lines 14-19);

shift drive means for shifting the imaging optical system and the photodetectors relative to each other (e.g., Figs. 4B and 4D; page 3, lines 2-14; page 4, lines 6-15);

a control unit for generating single synthesized image data using image data of the image of the object obtained through selected only one color of the color filter of the color imaging device, and image data of the image of the object obtained through the selected only one color of the color filter when the imaging optical system and the photo-detectors are shifted relative to each other by the shift drive means by a distance corresponding to a predetermined pitch on the imaging surface in a predetermined direction (e.g., page 3, lines 11-14; page 4, lines 11-15).

Applicant's admitted prior art does not disclose the control unit includes output means for outputting the single synthesized image data as single monochromatic image data.

Endsley et al., herein Endsley, discloses a camera with multiple output modes wherein a user can easily switch between a color image and a monochromatic image (e.g., column 5, lines 43-47; column 6, lines 3-14). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have used Endsley's method of switching color modes in order to easily switch between a color image and a monochromatic image. Thus, as disclose by Endsley, in the monochromatic color mode only green image data is output. In combining this teaching with Applicant's admitted prior art only the single image data having only the green potions is output. Examiner notes that Applicant's admitted prior art teaches that generating the monochromatic image using the prior art method disclosed by Applicant requires a long time (page 5, lines 13-19). Examiner further notes that Endsley disclose that in the monochromatic color mode the camera only transfers the green data. Therefore it further would have been obvious to one of ordinary skill in the art a the time of the invention to have simply output the green image data as monochromatic image data in order to reduce processing time and enable easy switching between monochrome and color image outputs.

In regards to claim 16 see Fig. 4A and page 2, lines 14-19.

In regards to claim 17 Applicants admitted prior art teaches shifting by either 1 pixel wherein n=1 or by half a pixel wherein n=2.

In regards to claim 18 note that Applicants admitted prior art teaches to shift the pixels a plurality of times by half a pixel.

In regards to claim 19 see Figs. 4B and 4D. Examiner notes that Applicant's invention discloses that the control unit obtains N+1 images, when the predetermined number of times is N. As illustrated in Fig. 2B the pixels are shifted once, therefore N=1, however, two, or N+1,

images are obtained, namely one before the shift and one after the shift. As seen by Figs. 4B and 4D Applicant's admitted prior art performs the same operation and therefore obtains N images, more particularly N+1 images.

In regards to claim 20 note that Endsley discloses that only the green image data is used.

In regards to claims 21-30 see Examiners notes on the rejections above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian C. Genco who can be reached by phone at 703-305-7881 or by fax at 703-746-8325. The examiner can normally be reached on Monday thru Thursday 7:30am to 4:30 pm and every other Friday 7:30am to 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on 703-308-9644. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-308-4357.

Brian C Genco
Examiner
Art Unit 2615

November 3, 2003

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600